

What is claimed is:

1. A method for removing ions from liquids passing through an electrodeionization system, comprising:
 - providing a flow-through electrodeionization module having spaced electrodes;
 - establishing a voltage gradient across said electrodes;
 - monitoring the value of a property of the liquid output from said electrodeionization module; and
 - controlling the amount of time that said voltage gradient is applied across said electrodes in response to said monitoring.
2. The method of claim 1, wherein said property is resistivity.
3. The method of claim 1, further comprising monitoring the value of a property of the liquid input into said electrodeionization module, and wherein the amount of time that said voltage gradient is applied across the electrodes is responsive to said monitoring of said value of said property of said liquid input.
4. The method of claim 1, wherein said amount of time that said voltage gradient is applied across said electrodes is controlled by controlling the amount of time power is supplied to said electrodeionization module.

5. The method of claim 4, wherein the amount of time power is supplied to said electrodeionization module is proportionally controlled.
6. The method of claim 4, wherein the amount of time power is supplied to said electrodeionization module is proportionally controlled such that said power is continuously on when said monitored value is below a predetermined range, is continuously off when said monitored value is above said predetermined range, and is intermittently on when said monitored value is within said predetermined range.
7. The method of claim 6, wherein said monitored value is resistivity.